VistA Immunization Enhancements Increment 3.0

VIMM Patch PX*1.0*215

Installation Guide

October 2016

Version 1.2

Revision History

Date	Version	Description	Author
10/20/2016	1.2	Revised version Updated coversheet (month: from September to October), (version: from 1.1 to 1.2). Updated footer from VIMM Patch PX*1.1*215 to VIMM Patch PX*1.0*215 and the month to October.	Seema Chaudhry
09/2016	1.1	Revised version	Berry Anderson (ManTech)
05/2016	1.0	Initial version	Berry Anderson (ManTech)

Table of Contents

1.0 Description of Program

The Veterans Health Information Systems and Technology Architecture (VistA) Immunizations Enhancements (VIMM) 2.0 project modifies existing Immunization and Skin Test files and adds additional files to enable VA to quickly and reliably document and exchange standardized skin test and immunization information on beneficiaries across services and departments.

Additionally, modifications support VistA Evolution requirements.

This provides a Veteran patient-centric immunization record exchangeable with the external community. Clinicians will have access to a more complete medical history in the VistA electronic medical record resulting in improved health status as well as public health monitoring.

2.0 Goal of VIMM 2.0

The Veterans Health Information Systems and Technology Architecture (VistA) Immunizations Enhancements (VIMM) 2.0 project, Increment 3, builds upon the file structures and standardized data introduced in Increments 1 and 2 by adding functional enhancements to the existing VistA Patient Care Encounter (PCE) package.

3.0 New Features in Patch PX*1.0*215

This patch provides the following new features:

1. Creates Remote Procedure Calls (RPCs) for use by the Enterprise Health Management Platform (eHMP) project, the Computerized Patient Record System (CPRS) software, Data Access Service (DAS), and others. These RPCs retrieve immunization information from the following files:

   VACCINE INFORMATION STATEMENT (#920)
   IMMUNIZATION INFO SOURCE (#920.1)
   IMM ADMINISTRATION ROUTE (#920.2)
   IMM ADMINISTRATION SITE (BODY) (#920.3)
   IMM CONTRAINDICATION REASONS (#920.4)
   IMM REFUSAL REASONS (#920.5)
   V IMM CONTRA/REFUSAL EVENTS (#9000010.707)
   IMM MANUFACTURER (#9999999.04)
   IMMUNIZATION (#9999999.14)
   IMMUNIZATION LOT (#9999999.41)
   IMM DEFAULT RESPONSES (#920.05)

2. Introduces functionality for capturing the reason(s) an immunization was not given by documenting immunization contraindications and/or refusal events. This functionality includes the following:

   a. Creation of the V IMM CONTRA/REFUSAL EVENTS file (#9000010.707).

   b. A WARNING UNTIL DATE may be stored for temporary contraindications/refusals. The contraindication/refusal is valid until this date.

   c. When an immunization for a patient is associated with valid contraindications/refusals, (WARNING UNTIL DATE is not a past date), the software will display a warning and the user will be required to acknowledge the warning and enter a justification reason before continuing with administration.

3. Inactivates the functionality of the PCE CODE MAPPING file (#811.1). The file will still exist, but the mappings in the file will no longer be used to determine which related entries in the V IMMUNIZATION (#9000010.11), V SKIN TEST (#9000010.12), and V CPT (#9000010.18) files need to automatically be recorded. From now on, the mappings in the CODING SYSTEM multiple of the IMMUNIZATION (#9999999.14) and SKIN TEST (#9999999.28) files will be used for this purpose. There are a few differences with this new approach:

   a. The PCE CODE MAPPING file was managed locally, while the CODING SYSTEM multiple of the IMMUNIZATION and SKIN TEST files are standardized and managed nationally.

   b. We will now support mappings to ICD-10 codes. If an immunization or skin test is mapped to an ICD-10 code, when that immunization or skin test is documented, we will automatically file the mapped ICD-10 code to the V POV file (#9000010.07).

   c. We will stop the practice of automatically recording an immunization or skin test when a corresponding CPT code is filed. The mappings will only be used to automatically file the corresponding codes (CPT and ICD-10) when an immunization or skin test is documented. However, in the reverse scenario, when a CPT code is documented, we will not automatically record the corresponding immunization or skin test.

   d. Codes will only automatically be filed when a VA-administered (non-historical) immunization or skin test is documented.

4. Includes functionality to enable a documenting provider to view some immunization prompts with default values to accept and to edit the responses if need be. This functionality includes:

   a. Creation of the IMM DEFAULT RESPONSES file (#920.05) to store facility specific default values by immunization type for ROUTE OF ADMINISTRATION, SITE OF ADMINISTRATION, DOSE, DOSE UNITS, and COMMENTS.

   b. Creation of the Immunization Default Responses Enter/Edit menu option [PXV EDIT DEFAULT RESPONSES] to allow authorized users to enter or update information in the IMM DEFAULT RESPONSES file (#920.05).

5. Updates the NDC CODE (VA) field (#.18) in the IMMUNIZATION LOT file (#9999999.41) so that access to information in the NDC/UPN file (#50.67) is controlled by application programmer interfaces (APIs).

APIs Associated:

API	New/Modified/Deleted
DATA2PCE^PXAPI (ICR #1889)	Modified
GETENC^PXAPI (ICR #1894)	Modified
ENCEVENT^PXKENC (ICR #1894)	Modified
VICR^PXPXRM (ICR #4250)	New
VICR^PXPXRMI1 (ICR #4519)	New
DQSAVE^PXRPC (ICR #6386)	New
IMMSTAT^PXAPIIM (ICR #6387)	New

Files & Fields Associated:

File Name (Number)		
Field Name (Number)		**New/Modified/Deleted**
IMM DEFAULT RESPON (#920.05)		
FACILITY (#.01)		New
IMMUNIZATION (multiple field #1, sub-file #920.051)		New
IMMUNIZATION (#.01) of the IMMUNIZATION sub-file (#920.051)		New
ROUTE OF ADMINISTRATION (#1302) of the IMMUNIZATION sub-file (#920.051)		New
SITE OF ADMINISTRATION (#1303) of the IMMUNIZATION sub-file (#920.051)		New
DOSE (#1312) of the IMMUNIZATION sub-file (#920.051)		New
DOSE UNITS (#1313) of the IMMUNIZATION sub-file (#920.051)		New
COMMENTS (#81101) of the IMMUNIZATION sub-file (#920.051)		New
IMM CONTRAINDICATION REASONS (#920.4)		
CONCEPT CODING SYSTEM (#.05)		Modified
IMM ROUTES TO SITES (#920.6)		
ROUTE (#.01)		New
SITES (multiple field #1, sub-file #920.61)		New
SITES (#.01) of the SITES sub-file (#920.61)		New
V IMMUNIZATION (#9000010.11)		
WARNING ACKNOWLEDGED (#1220)		New

WARNING OVERRIDE REASON (#1601)   New

V SKIN TEST (#9000010.12)
      CODING SYSTEM (multiple field #3, sub-file
          #9000010.123)   Deleted
      CODING SYSTEM (#.01) of the CODING SYSTEM
          sub-file (#9000010.123)   Deleted
      CODE (multiple field #.02, sub-file #9000010.1231
          of the CODING SYSTEM sub-file (#9000010.123)   Deleted
      CODE (#.01) of the CODE sub-file (#9000010.1231)   Deleted

V IMM CONTRA/REFUSAL EVENTS (#9000010.707)
      CONTRAINDICATION/REFUSAL (#.01)   New
      PATIENT NAME (#.02)   New
      VISIT (#.03)   New
      IMMUNIZATION (#.04)   New
      WARN UNTIL DATE (#.05)   New
      DATE/TIME RECORDED (#.06)   New
      EVENT DATE AND TIME (#1201)   New
      ENCOUNTER PROVIDER (#1204)   New
      EDITED FLAG (#80101)   New
      AUDIT TRAIL (#80102)   New
      COMMENTS (#81101)   New
      VERIFIED (#81201)   New
      PACKAGE (#81202)   New
      DATA SOURCE (#81203)   New

IMMUNIZATION LOT (#9999999.41)
      NDC CODE (VA) (#.18)   Modified

PCE CODE MAPPING (#811.1)   Modified

Options Associated:

Option Name	Type	New/Modified/Deleted
PXV EDIT DEFAULT RESPONSES	Run Routine	New
PX PCE CODE MAPPING LIST	Print	Modified

Protocols Associated:

Protocol Name	New/Modified/Deleted
PXCE ADD/EDIT MENU	Modified
PXCE ICR ADD	New

RPCs Associated:

RPC	New/Modified/Deleted
PX SAVE DATA	Modified
PXVIMM ADMIN CODES	New
PXVIMM ADMIN ROUTE	New
PXVIMM ADMIN SITE	New
PXVIMM ICR LIST	New
PXVIMM IMM DETAILED	New
PXVIMM IMM FORMAT	New
PXVIMM IMM LOT	New
PXVIMM IMM MAN	New
PXVIMM IMM SHORT LIST	New
PXVIMM IMMDATA	New
PXVIMM INFO SOURCE	New
PXVIMM VICR EVENTS	New
PXVIMM VIS	New

Patient Safety Issues (PSIs):

PSPO #2995
PSPO #3069

Defect Tracking System Ticket(s) & Overview:

1. INC000001294271
    R4956462FY15
    R6300645FY16

Related Patient Safety Issues:
PSPO #2995
PSPO #3069

Problem:

PCE CODE MAPPING issues are causing duplicate or incorrect entries to be documented to the V IMMUNIZATION file.

Resolution:

The PCE CODE MAPPING file will be deprecated. Instead, we will use the CODING SYSTEM multiple of the IMMUNIZATION and SKIN TEST files.

4.0 Test Sites

- Cleveland, OH
- St. Louis, MO

- San Antonio, TX

5.0 Documentation Retrieval Instructions (VIMM Patch PX*1.0*215)

The software documentation is being released as a host file and/or documentation describing the new functionality introduced by this patch is available.

The preferred method is to retrieve files from download.vista.med.va.gov. This transmits the files from the first available server. Sites may also elect to retrieve files directly from a specific server.

Sites may retrieve the software and/or documentation directly using Secure File Transfer Protocol (SFTP) from the ANONYMOUS.SOFTWARE directory at the following OI Field Offices:

Albany: fo-albany.med.va.gov

Hines: fo-hines.med.va.gov

Salt Lake City: fo-slc.med.va.gov

Documentation can also be found on the VA Software Documentation Library at: http://www4.va.gov/vdl/

Title	File Name	FTP Mode
Patient Care Encounter (PCE) V. 1.0 User Manual	PX_1_UM_R0816.PDF	(binary)
Patient Care Encounter (PCE) V.1.0 Technical Manual	PX_1_TM_R0816.PDF	(binary)
Clinical Reminders (PXRM) Index Technical Manual	PXRM_INDEX_TM.PDF	(binary)

6.0 Patch Installation (VIMM Patch PX*1.0*215)

Associated patches:

Patch PX*1.0*186 must be installed BEFORE PX*1.0*215

Patch PX*1.0*195 must be installed BEFORE PX*1.0*215

Patch PX*1.0*210 must be installed BEFORE PX*1.0*215

Patch PSN*4.0*448 must be installed BEFORE PX*1.0*215

6.1 Pre/Post Installation Overview

The post-installation process will generate a report from the PCE CODE MAPPING file (#811.1) for review. The report will contain all active mappings where either a) an inactive immunization was mapped to a CPT code; or b) a CPT code was mapped to an immunization

or skin test. The report will be emailed to the user who installed the patch and to the mail group specified in the REMINDER MANAGEMENT MAILGROUP field (#3) of the CLINICAL REMINDER PARAMETERS file (#800). The report will also be sent to the VHA National Center for Health Promotion and Disease Prevention (NCP) for review. If it is determined that patient charts may have been affected with erroneous data prior to the inactivating of the PCE CODE MAPPING file with this patch, the site will be contacted and instructed to submit a help desk ticket for resolution.

6.2 Pre-Installation Instructions

Patch PSN*4.0*448 must be installed before installing patch PX*1.0*215.

6.3 Post-Installation Instructions

N/A

6.4 Rollback Instructions

In the event a rollback is needed, the site should log a CA SDM (Service Desk Manager) ticket. The site must work closely with the development team to back out the patch, as it requires restoring data dictionaries (DDs).

Refer to the VIMM 2.0 Increment 3 Recovery Procedures document for more information.

Located at this link: VIMM_2_0_Increment_3_Recovery_Procedures.docx

Rollback procedures for PSN*4.0*448 are included in the document mentioned above.

7.0 Installation Instructions for Dependent/Associated Patch

WARNING: Associated patch must be installed in the proper order

The following patches must be installed in this order

1. Patch PSN*4.0*448   Additional NDC/UPN APIS
2. Patch PX*1.0*215   VIMM 2.0 patch

The following installation instructions for the dependent patch has been included in the following section.

7.1 Installation Instructions for Patch PSN*4.0*448

Associated patch:

PSN*4.0*296 must be installed BEFORE PSN*4.0*448

Description of Patch PSN*4.0*448

This patch adds three components to the routine PSNAPIS, supported by Integration Control Registration (ICR) #2531, to provide additional access to the NDC/UPN file (#50.67).

1. INTRAN - This entry point provides input transform lookup functionality for fields that store NDC codes.

2. DRGCLS - This entry point returns class and parent class for a National Drug Code (NDC).

3. QLIST - This entry point provides executable help ("?" or "??") for fields that store NDC codes.

APIs Associated:

API	New/Modified/Deleted
INTRAN^PSNAPIS	New
DRGCLS^PSNAPIS	New
QLIST^PSNAPIS	New

Additional Information:

Test Sites:
- Cleveland, OH
- Heartland-East HCS
- San Antonio, TX

Software and Documentation Retrieval Instructions for Patch PSN*4.0*448:

The software documentation is being released as a host file and/or documentation describing the new functionality introduced by this patch is available.

The preferred method is to retrieve files from download.vista.med.va.gov. This transmits the files from the first available server. Sites may also elect to retrieve files directly from a specific server.

Sites may retrieve the software and/or documentation directly using Secure File Transfer Protocol (SFTP) from the ANONYMOUS.SOFTWARE directory at the following OI Field Offices:

Albany:	fo-albany.med.va.gov
Hines:	fo-hines.med.va.gov
Salt Lake City:	fo-slc.med.va.gov

Documentation can also be found on the VA Software Documentation Library at: http://www4.va.gov/vdl/.

Title	File Name	FTP Mode
Pharmacy Re-Engineering	PHAR_1_API_R0316.PDF	(binary)

(PRE) API Manual		

INSTALLATION INSTRUCTIONS for Patch PSN*4.0*448

1. Choose the PackMan message containing this patch.

2. Choose the INSTALL/CHECK MESSAGE PackMan option.

3. From the Kernel Installation and Distribution System Menu, select the Installation Menu. From this menu, you may elect to use the following options. When prompted for the INSTALL NAME, enter the patch # (PSN*4.0*448):

   a. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup any other changes such as DDs or templates.

   b. Compare Transport Global to Current System - This option will allow you to view all changes that will be made when this patch is installed. It compares all components of this patch (routines, DDs, templates, etc.).

   c. Verify Checksums in Transport Global - This option will allow you to ensure the integrity of the routines that are in the transport global.

4. From the Installation Menu, select the Install Package(s) option and choose the patch to install. Enter PSN*4.0*448.

5. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//'

   Answer NO.

6. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//'

   Answer NO.

Routine Information:

The second line of each of these routines now looks like:

;;4.0;NATIONAL DRUG FILE; **[Patch List]**; 30 Oct 98;Build 2

The checksums below are new checksums, and can be checked with CHECK1^XTSUMBLD.

Routine Name: PSNAPIS

Before: B50538431   After: B59524567 **2,3,47,70,169,108,262,296,448**

8.0 Installation Instructions for PX*1.0*215

WARNING: Associated patch must be installed in the proper order

The following patches must be installed in this order:

1. Patch PSN*4.0*448   Additional NDC/UPN APIS

2. Patch PX*1.0*215   VIMM 2.0 patch

This patch should be installed during a period of minimal system activity, preferably with users off the system. Installation time is expected to be approximately 10 minutes.

9.0 Step-by-Step Instructions for PX*1.0*215

This patch should be installed during a period of minimal system activity, preferably with users off the system. Installation time is expected to be approximately 10 minutes.

1. Choose the PackMan message containing this patch.

2. Choose the INSTALL/CHECK MESSAGE PackMan option.

3. From the Kernel Installation and Distribution System Menu, select the Installation Menu. From this menu, you may elect to use the following options. When prompted for the INSTALL NAME enter the patch # (PX*1.0*215):

   a. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup any other changes such as DDs or templates.

   b. Compare Transport Global to Current System - This option will allow you to view all changes that will be made when this patch is installed. It compares all components of this patch (routines, DDs, templates, etc.).

   c. Verify Checksums in Transport Global - This option will allow you to ensure the integrity of the routines that are in the transport global.

   d. Print Transport Global - This option will allow you to view the components of the KIDS build.

4. From the Installation Menu, select the Install Package(s) option and choose the patch to install. Enter PX*1.0*215.

5. When prompted 'Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES//'

   Answer YES.

6. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//'

   Answer NO.

7. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//

   Answer NO.

10.0 Post-Installation Instructions / Routine Information for PX*1.0*215

10.1 Post-Installation Instructions

N/A

10.2 Routine Information

The second line of each of these routines now looks like:

;;1.0;PCE PATIENT CARE ENCOUNTER ;**[Patch List]**;Aug 12, 1996;Build 10

The checksums below are new checksums, and can be checked with CHECK1^XTSUMBLD.

Routine Name: PXAI
    Before: B40979532   After: B42819168
                           15,74,69,102,111,112,130,164,168,215
Routine Name: PXAIICR
    Before: n/a   After: B5253575 **215**
Routine Name: PXAIICRV
    Before: n/a   After: B12775865 **215**
Routine Name: PXAIIMM
    Before: B14255138   After: B16045767 **45,124,209,210,215**
Routine Name: PXAPIIM
    Before: B2741056   After: B80558091 **210,215**
Routine Name: PXCEAE
    Before: B32867509   After: B33109650 **37,67,99,147,156,172,195,215**
Routine Name: PXCEAE1
    Before: B29168014   After: B29262597 **22,73,199,201,210,215**
Routine Name: PXCEICR
    Before: n/a   After: B18593217 **215**
Routine Name: PXCEVFI1
    Before: B23924796   After: B33198888
                           23,73,112,136,143,124,184,185,210,215
Routine Name: PXCEVFI2
    Before: B34344095   After: B37818294 **22,73,95,96,124,158,184,215**
Routine Name: PXCEVFIL
    Before: B43615497   After: B44185519
                           9,30,22,73,88,89,104,147,124,169,210,215
Routine Name: PXCEVIMM
    Before: B83423957   After: B86101677 **27,124,199,201,210,215**
Routine Name: PXKENC
    Before: B29230371   After: B29334197 **15,22,73,108,143,183,210,215**
Routine Name: PXKFCPT1
    Before: B23838795   After: B24656697 **11,73,124,194,209,215**

Routine Name: PXKFICR
　　　　Before:　　n/a　　　　　　After:　B1725753 **215**
Routine Name: PXKFIMM
　　　　Before: B4427968 After:　B5142444 **22,124,201,209,210,215**
Routine Name: PXKFPOV1
　　　　Before:　　n/a　　　　　　After:　B9458058 **215**
Routine Name: PXKMAIN
　　　　Before: B55417967　　　　After:　B55424847
　　　　　　　　　　　　　　　　22,59,73,88,69,117,130,124,174,164,210,215
Routine Name: PXKMAIN2
　　　　Before: B10938982　　　　After:　B25829818 **69,186,215**
Routine Name: PXPXRM
　　　　Before: B88904295　　　　After:　B125590932 **119,199,210,215**
Routine Name: PXPXRMI1
　　　　Before: B55159505　　　　After:　B104225670 **119,194,210,215**
Routine Name: PXRPC
　　　　Before: B109684381　　　　After:　B156917264 **200,209,210,215**
Routine Name: PXVNDC
　　　　Before:　　n/a　　　　　　After:　B1736379 **215**
Routine Name: PXVP215
　　　　Before:　　n/a　　　　　　After:　B34039279 **215**
Routine Name: PXVRESP
　　　　Before:　　n/a　　　　　　After:　B3810590 **215**
Routine Name: PXVRPC1
　　　　Before:　　n/a　　　　　　After:　B70359613 **215**
Routine Name: PXVRPC2
　　　　Before:　　n/a　　　　　　After:　B29476719 **215**
Routine Name: PXVRPC3
　　　　Before:　　n/a　　　　　　After:　B28618741 **215**
Routine Name: PXVRPC4
　　　　Before:　　n/a　　　　　　After:　B131321819 **215**
Routine Name: PXVRPC5
　　　　Before:　　n/a　　　　　　After:　B35105697 **215**
Routine Name: PXVRPC6
　　　　Before:　　n/a　　　　　　After:　B16158307 **215**
Routine Name: PXVUTIL
　　　　Before: B10006565　　　　After:　B13284181 **201,210,215**
Routine Name: PXVZRT
　　　　Before: B71159926　　　　After:　B82546869 **206,215**

Routine list of preceding patches: 168, 186, 195, 206, 210